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AKERMAN SENTERFITT			DAILEY, THOMAS J	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action, Summary	Application No.	Applicant(s)
	10/665,585	CREAMER ET AL.
	Examiner Thomas J. Dailey	Art Unit 2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 September 2003.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-31 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-31 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/9/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-31 are pending in this application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 12-31 are rejected under 35 U.S.C.101 because the claimed invention is directed to non-statutory subject matter.
4. Claims 12-15 are directed to "A system for testing applications within a grid environment wherein said grid environment comprises a production segment and a test segment, said system comprising..." and all the limitations are software elements (hosts and ghost agents). Therefore the claims are directed to functional descriptive material that is not embodied on a computer system which is non-statutory.
5. Claims 16-19 are directed to "A ghost agent comprising..." and all the limitations are software elements of a ghost agent. Therefore the claims are directed to functional descriptive material that is not embodied on a computer system which is non-statutory.

6. Claims 20-30 are directed to "A machine-readable storage" and "executable by a machine for causing the machine to..." This is considered non-statutory subject matter and the examiner suggests the Applicant change the limitation to read "A computer readable storage medium" and "executed by a computer for causing the computer to..."
7. Claim 31 is directed to "A system for testing comprising..." all the limitations are the limitations are software elements (hosts, means for associating, means for replicating, etc.). Therefore the claims are directed to functional descriptive material that is not embodied on a computer system which is non-statutory.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
9. Claims 12-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
10. Claim 12 recites, "said host *can move* from one grid location to another" (line 5). The recitation that the host *can move* renders the claim indefinite.

11. Claims 13, 14, and 15 are system claims that depend from claim 11, a method claim. The claims will be interpreted as system claims that depend from claim 12, as the Examiner believes that was the Applicant's intent.

12. Claim 14 recites, "a different ghost agent configured to record data related to actions executed by *said host* of said test segment." It is unclear what *said host* is referring to and what actions are being executed (Are they the same as stated in claim 12?). The Examiner believes the applicant intended to say *said different host* and will be interpreted as such.

13. Claim 15 recites, "said ghost agent" (line 3). It is unclear which ghost agent this refers to: the one recited in claim 12, claim 14, or the new one introduced in claim 15. If they are in fact three different ghost agents, they need to be more clearly identified as such.

14. Claim 16 recites, "wherein said ghost agent *can move* from location to location" (line 7). The recitation that the host *can move* renders the claim indefinite.

15. Claims 17-19 are rejected due to their dependence on claim 16.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1-2, 4-8, 10, 20-21, 23-27, 29, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Boukobza et al (US Pat. 6,122,664), hereafter "Boukobza."

18. As to claims 1, 20, and 31, Boukobza discloses a machine readable medium for causing a computer to execute a testing method, a system for testing, and the testing method (Abstract) comprising the steps of:

identifying a plurality of hosts located within a plurality of grids of a grid environment, wherein each host is a software object (column 4, lines 64-67, "agents are installed...in the nodes to be monitored");

associating a ghost agent with each identified host (column 4, lines 64-67 and column 5, lines 13-18, "An autonomous agent SAA is chiefly composed of a generic agent GA related to specific modules SM");

replicating actions of said host for use by said associated ghost agents (column 6, lines 30-34, "log files of the actions of each node monitored");

recording data relating to said replicated actions (column 6, lines 30-34, "log files of the actions of each node monitored"); generating test input from said recorded data (column 8, lines 44-67, the log is tested for errors via a scan); and, testing within said grid environment using said test input (column 8, lines 44-67, the log is tested for errors via a scan).

19. As to claims 2 and 21, Boukobza discloses wherein said replicated actions are passive actions, said method further comprising the step of: preventing said replicated actions from operationally executing in said grid environment (column 8, lines 44-67).

20. As to claims 4 and 23, Boukobza discloses determining operational metrics for at least one component to be tested; modifying said test input based upon said operational metrics (column 8, lines 44-67, parameters from the log are compared with wanted or expected values of parameters (operational metrics)).

21. As to claims 5 and 24, Boukobza discloses said hosts are disposed within a production segment of said grid environment (column 4, lines 64-67) and wherein said testing is performed within a test segment of said grid environment (column 8, lines 44-67).

Art Unit: 2152

22. As to claims 6 and 25, Boukobza discloses inputting said test input into at least one ghost agent (column 8, lines 50-56); and, executing actions within said test segment based upon said ghost agent that received said test input (column 8, lines 53-63).

23. As to claims 7 and 26, Boukobza discloses deploying ghost agents within said test segment of said grid environment (column 4, lines 64-67 and column 5, lines 13-18); and, recording data relating to said testing using said deployed ghost agents (column 8, lines 50-67).

24. As to claims 8 and 27, Boukobza discloses said hosts are associated with a specific application, wherein said testing is conducted for said application (column 8, lines 44-67).

25. As to claims 10 and 29, Boukobza discloses gathering usage data for at least one different application using ghost agents (column 2, lines 39-46).

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claims 3, 16-17, 19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boukobza as applied to claim 1 and 20 above, in view of Putzolu et al (US Pat. 6,681,423), hereafter "Putzolu."

28. As to claim 16, Boukobza discloses a ghost agent comprising:

- a ghost log configured to record data related to actions executed by a host, wherein said host is a software object (column 6, lines 30-34, "log files of the actions of each node monitored");
- a ghost identifier configured to identify said ghost agent to components within a grid environment (Boukobza, column 8, lines 53-63, the action that is called is sent to "the object_id"); and,
- a ghost controller for managing interactions between said ghost agent and said grid environment (column 5, lines 8-18), wherein said ghost agent is used to test grid-based applications (Boukobza, column 8, lines 44-67, the log is tested for errors via a scan).

But, Boukobza does not disclose moving said ghost agent within said grid environment.

However, Putzolu discloses using mobile agents in a grid environment and such agents being applications to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu in order to create a validation method that utilizes mobile agents which allow for a decentralization of the method and allowing thereby allowing more effective management of the network (Putzolu, column 2, line 64-column 3, line 9).

29. As to claims 3 and 22, Boukobza discloses the invention substantially with regard to the parent claims 1 and 20, and but does not disclose moving selective ones of said hosts from location to location within said grid environment; and, responsively moving said ghost agents in accordance with movement of said hosts.

However, Putzolu discloses using mobile agents in a grid environment and such agents being applications to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu in order to create a validation method that utilizes mobile agents which allow for a decentralization of the method and allowing thereby

allowing more effective management of the network (Putzolu, column 2, line 64-column 3, line 9).

30. As to claim 17, Boukobza and Putzolu disclose the parent claim 16, and further discloses a means for generating test input using said ghost agent (Boukobza, column 8, lines 44-67, the log is validated by the scan which parameters as input defined in column 5, lines 23-32).

31. As to claim 19, Boukobza and Putzolu disclose the parent claim 16, and further disclose means for generating test output using said ghost agent (Boukobza, column 8, lines 44-67).

32. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (US Pat. 5,812,780), hereafter "Chen," in view of Putzolu.

33. As to claim 12, Chen discloses a system for testing applications within a grid environment wherein said grid environment comprises a production segment and a test segment (Abstract), said system comprising:
a host configured to execute actions within said production segment (column 6, lines 51-54); and,
a ghost agent configured to record data related to said actions executed by said host (column 4, lines 3-5), wherein said recorded data is

used to simulate user interactions within said test segment (column 3, lines 53-59).

But Chen does not disclose wherein said host can move from one grid location to another.

However, Putzolu discloses using mobile agents in a grid environment and such agents being applications to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Chen and Putzolu in order to create a validation method that utilizes mobile agents which allow for a decentralization of the method and allowing thereby allowing more effective management of the network (Putzolu, column 2, line 64-column 3, line 9).

34. As to claim 13, Chen and Putzolu disclose the parent claim 12, and further disclose said ghost agent is further configured to responsively move in accordance with movement of said host (Putzolu, column 3, lines 59-61 and column 4, lines 17-23).

35. As to claim 14, Chen and Putzolu disclose the parent claim 12, and further disclose a different host configured to execute actions within said test segment (Chen, column 6, lines 51-57, there are multiple servers in Chen's system); a different ghost agent configured to record data related to actions executed by said host of said test segment (Chen, column 4, lines 3-5, multiple simulations of clients).

36. As to claim 15, Chen and Putzolu disclose the parent claim 14, and further disclose a ghost agent configured to trigger said different host in said test segment to execute said actions based upon data recorded by said ghost agent in said production segment (Chen, column 4, lines 3-9).

37. Claims 9, 11, 28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boukobza, as applied to claim 8, in view of Chen.

38. As to claims 9 and 28, Boukobza discloses the parent claims 8 and 27, but does not disclose determining system requirements for said application based at least in part upon output from said testing.

However, Chen discloses determining system requirements for said application based at least in part upon output from said testing (column 3, line 64-column 4, line 9).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Chen in order to determine how many clients a given server can adequately support (column 3, lines 64-67).

39. As to claims 11 and 30, Boukobza discloses the parent claims 10 and 29, but does not disclose testing said specific application while simultaneously simulating load conditions resulting from said at least one different application.

However, Chen discloses testing said specific application while simultaneously simulating load conditions resulting from said at least one different application (column 4, lines 5-9).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Chen in order to determine how many clients a given server can adequately support (column 3, lines 64-67).

40. Claims 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boukobza and Putzolu, as applied to claim 16, in further view of Chen.

41. As to claim 18, Boukobza and Putzolu disclose the parent claim 16, but do not disclose means for simulating user actions during tests using said ghost agent.

However Chen, discloses means for simulating user actions during tests using said ghost agent (column 3, lines 53-59).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu with Chen in order to determine how many clients a given server can adequately support (column 3, lines 64-67).

Conclusion

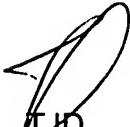
42. For additional prior art made of record and not relied upon and considered pertinent to applicant's disclosure see attached Notice of References Cited, Form PTO-892.

43. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.

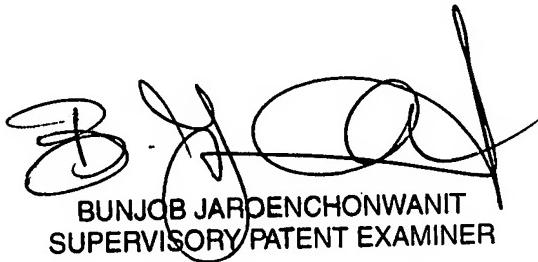
44. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-

272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

45. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



TJD
5/8/07



BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER